SECTOR BRIEFING

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DBS Asian Insights

DBS Group Research • July 2019

KL-SG High Speed Rail

Riding the HSR Revival

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KL-SG High Speed Rail

Riding the HSR Revival

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Executive Summary

Kuala Lumpur – Singapore High Speed Rail: An Introduction

The initial idea for the Kuala Lumpur – Singapore High Speed Rail (KL-SG HSR) project took a more concrete shape when leaders of both countries met at a leaders' retreat in October 2013. The idea was explored between both nations in the 1990s and was on the cusp of coming to fruition until the conclusion of Malaysia's 14th General Elections (GE14) in May 2018. After the new government took over, this project was postponed until May 2020.

In September 2018, both Malaysia and Singapore agreed to postpone the construction of the project until May 2020. Malaysia' Minister of Economic Affairs Datuk Seri Azmin Ali and Singapore Transport Minister Khaw Boon Wan exchanged legal documents pertaining to this, postponing the start of HSR's operations to 1 Jan 2031 instead of 31 December 2026.

According to a study, the economic benefits of the HSR is estimated at RM 21bn of Gross Domestic Product (GDP) in the year 2060 with 442,000 jobs created. This is on top of the multiple benefits of its construction estimated at RM 70bn, with direct and indirect GDP impact of RM 29bn. It is estimated that the service will carry 22m passengers in year 10 of operations for all travel routes.

The Prime Minister of Malaysia Tun Mahathir Mohamad said in early April 2019 that he was exploring proposals to reduce HSR's total cost. He admitted that the project has potential economic benefits for both countries but it has to be feasible and sustainable.

However, in mid-April he changed his tune somewhat, focusing on improving the existing railway system through electrification and double tracking. His main rationale is that the HSR service should be for travel of more than six hours, such as services from Johor to Penang, or even Thailand.

Is revival of HSR imminent?

In our view, the revival of the HSR looks imminent given two key events in 2Q19. First, MyHSR sought a TAC via an open tender. This TAC will be tasked to review the technical aspects and recommendations following the Malaysian government's revisions including alignment, stations and HSR maintenance, as well as on the ground data collection activities such as topography survey data, soil investigation and ground condition assessments.

In May 2018, MyHSR called for a tender to appoint a commercial advisory consultant (CAC). The CAC will be required to develop a new business model that will enable optimal project life-cycle cost, provide updated ridership forecasts and assessments of the HSR's benefits.

Second is the revival of the Bandar Malaysia project. On 19 April 2019, Mahathir announced that the Bandar Malaysia project will be revived but with some changes. The original master developer, a consortium of Iskandar Waterfront Holdings Bhd and China Railway Engineering Corp Sdn Bhd (IWH-CREC), had 60 days to pay the original deposit sum of RM741m with an additional RM500m.The plan will also now include 10,000 affordable housing units, a people's park, Bumiputra (indigenous Malays) participation throughout the project, and priority for local content and materials.

Economic Affairs Minister Azmin added that the revived Bandar Malaysia project will be driven by the private sector and not receive government funding. The key focus of this project is to make Malaysia a financial hub, apart from the other commercial and residential content.

Bandar Malaysia and HSR go hand in hand

In our view, the success of Bandar Malaysia hinges on transport connectivity. Bandar Malaysia was initially earmarked for the HSR terminus (starting point). There were also supposed to be two underground stations at Bandar Malaysia for MRT2 before this was put on hold. The revival of Bandar Malaysia will likely be a precursor to the eventual continuation of the HSR project in May 2020.

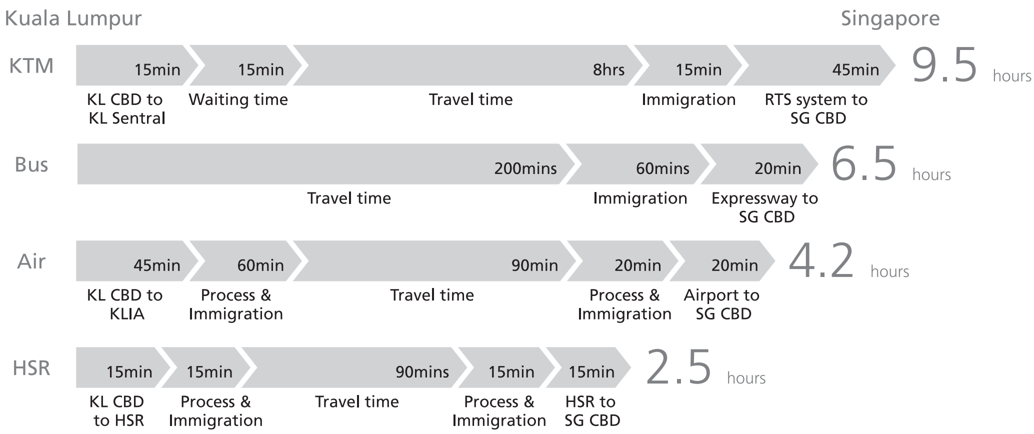
Further delays mean more compensation

The key question now is if the Singapore government will allow further deferment of this project beyond May 2020 without additional compensation from Malaysia. So far, Malaysia has paid Singapore SGD15m in compensation for the project's delay. Any further delays would likely lead to much larger compensation.

Structure of HSR largely intact

The bulk of the project's structure will still be relatively intact. However, financing and cost structure will likely take precedence. In this report, we will attempt to make reasonable guesstimates on how the new government will structure this project. However, much of the report is still based on the previous structure. We believe the entity that offers the most holistic financing solution for this project will have an upper hand.

HSR offers shortest travel time Malaysia-Singapore



Source: MyHSR

Shortest travel time

The HSR is envisaged to provide the shortest travelling time between both countries, inclusive of travelling time to the HSR Stations and clearing immigration. Compared to the fastest alternative today of air travel, the time saved is estimated at two hours.

Still 7 stations

The HSR project will include 7 stations in Malaysia – Bandar Malaysia, Sepang-Putrajaya, Seremban, Melaka, Muar, Batu Pahat and Iskandar Puteri, before reaching its last destination in Jurong East, Singapore. The total length of the rail will be 350km (335km in Malaysia and 15km in Singapore).

Three CIQs and one immigration check point

The estimated travelling time is 90 minutes for the 350km distance. Great emphasis has been placed on better and more seamless Customs, Immigration and Quarantine (CIQ) connectivity. There are three CIQ check points in Bandar Malaysia, Iskandar Puteri and Jurong East. There will only be one immigration check point. For example, if you board the train in Bandar Malaysia, there will be only one immigration check point there and none in Jurong East.

HSR alignment

Source: MyHSR

Three services

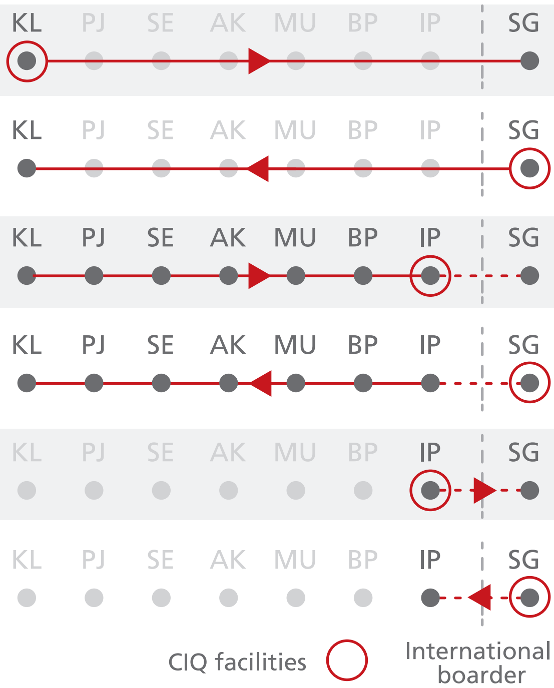
There are three HSR services expected:

1. Direct service (90 minutes)
2. Domestic service in Malaysia
3. Shuttle service from Iskandar Puteri to Singapore.

Passengers will only need to undergo one CIQ clearance in either Singapore or Malaysia at their point of departure.

HSR: CIQ Analysis

Passengers' route	Service(s)
Kuala Lumpur to Singapore	Express
Singapore to Kuala Lumpur	Express
Anywhere in Malaysia to Singapore	Domestic + Shuttle
Singapore to Anywhere in Malaysia	Domestic + Shuttle
Iskandar Puteri to Singapore	Shuttle
Singapore to Iskandar Puteri	Shuttle



Source: MyHSR

KL-SG HSR : Milestones

Date	Event
19-Oct-13	Joint Statement by both Malaysia and Singapore Prime Ministers at the Leaders' Retreat in Singapore to build the HSR
7-Apr-14	Both Prime Ministers at Leaders' Retreat in Putrajaya reiterated commitment for the project
19-Jul-16	Joint SPAD and LTA on MOU for HSR
29-Jul-16	MyHSR appoints CH2M as technical advisor
13-Dec-16	Joint SPAD and LTA releases fact sheet on HSR which is similar to the MOU
19-Sep-17	MyHSR and LTA to conduct ticketing and fare collection discussions
28-Sep-17	Second industry briefing for HSR
2-Nov-17	Public inspection commences for a period of three months
20-Nov-17	MyHSR to launch PDP tender
20-Dec-17	Launch of AssetCo tender
26-Dec-17	EIA ready for public viewing
5-Jan-18	Social Impact Assessment contract awarded to ERE Consulting
23-Jan-18	MyHSR and SG HSR successfully held a briefing for the AssetsCo tender in KL.
8-Feb-18	Public inspection exercise concluded where 95% of public feedback received were supportive of the project, with an overwhelming 98% of positive response received from Kuala Lumpur and Johor. Most of the total respondents were represented by the 21-40 age group.
7-Mar-18	MyHSR will call for a tender to appoint the Final Survey Consultants (FSC) on 9 March 2018. The FSC tender will be divided into 6 packages, with 3 packages reserved for Bumiputera firms. The main scope of the FSC are to conduct land survey and provide land administration support for the land acquisition process. Upon approval of the Railway Scheme, the identified land will be acquired by the government in accordance to Section 8 of Land Acquisition Act 1960 ('Act 486'). The land acquisition application is expected to commence in June 2018 with the first land to be acquired for the main infrastructures (i.e.: stations, maintenance facilities, tunnel portals, etc.).
5-Apr-18	Two PDPs appointed for the Northern and Southern section.
5-Apr-18	Environmental Impact Assessment Study approved.
19-Apr-18	AssetCo tender extended by six months and will close on 28 December 2018. Results by 3Q19
May 18	New Prime Minister of Malaysia Tun Mahathir said project will be scrapped
July 18	Tun Mahathir said project is deferred instead
5-Sep-18	Both Malaysia and Singapore Governments agree to postpone the construction of the project until May 2020. Malaysia' Economic Minister Azmin Ali and Singapore Transport Minister Khaw Boon Wan exchanged legal documents pertaining to this. The express service is supposed to start by 1 Jan 2031 instead of 31 December 2026. Hence, the international tender for the AssetCo has also been called off
8-Apr-19	MyHSR Corp is seeking a Technical Advisory Consultant (TAC) via an open tender. This TAC will be tasked to review the technical aspects of the recommended option following its revision by the Malaysian Government
9-May-19	MyHSR called for a tender to appoint a commercial advisory consultant (CAC). The CAC will be required to develop a new business model that will enable optimal project life-cycle cost, provide updated ridership forecasts and assessments of the benefits of the HSR.

Source: MyHSR

KL-SG HSR: Potential Migration Impacts

This report will dissect the following issues:

- Potential impact and risks of HSR construction, as well as companies that may benefit (PDP, AssetsCo, InfraCos, Opcos) from the project
- Comparison with Jakarta-Bandung HSR, the first in ASEAN
- Potential impact on economic development along the rail's alignment. There could be significant changes in demographics, migration between cities and property value
- Detailed analysis on key Malaysian property developers with sizeable land bank along the HSR alignment. We also assess if the proposed HSR may revitalise the local property market which has been plagued by unprecedented overhang

HSR corridor is vital to Malaysia's economy

The HSR corridor is already an important economic component in the country, regardless of the project's commencement. According to a study, the HSR corridor collectively contributed to 54% of national GDP in 2016 and accounted for 46% of total employment. This is largely due to the fact that three of the states involved in the HSR Kuala Lumpur, Selangor and Johor are major economic centres of the country.

Bandar Malaysia terminus?

It remains to be seen if Bandar Malaysia will still be picked as the HSR terminus in Malaysia. The 486-acre Bandar Malaysia's positioning as a key transportation hub and Transit-Oriented Development (TOD) will be strengthened further if this happens. Besides having the main HSR station in Malaysia, it would also provide connectivity to MRT Lines 2 and 3, KTM Komuter Lines and the Express Rail Link (ERL).

This may ultimately reduce the high level of existing inventory in the KL office market, estimated at 96m square feet (sq ft) in 2018 with another 13m sq feet by 2020. Smaller cities such as Seremban, Ayer Keroh, Muar and Batu Pahat should benefit too. There could be more migration inland which may eventually lift property value.

HSR is more than just another transportation project connecting two major cities. It will be a key catalyst in transforming economic clusters and cities along the corridor. Besides the

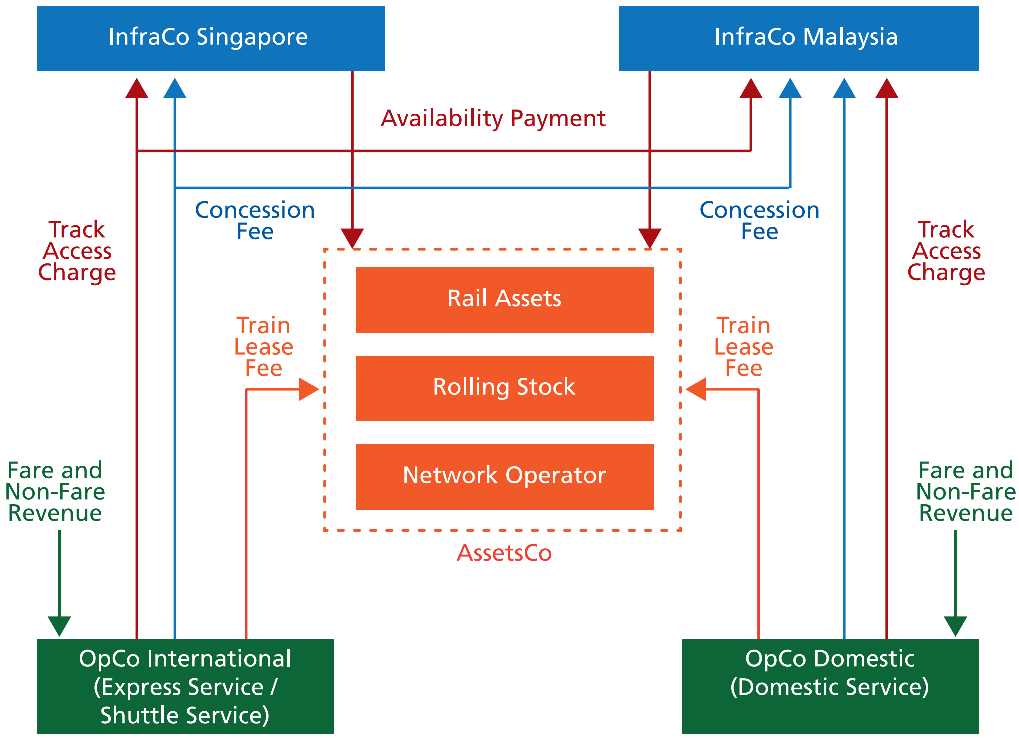
intra-country impact in Malaysia, it will strengthen regional economic integration between Malaysia and Singapore and could see more work migration between both countries.

SG-KL is busiest international air link

Aviation industry consultants OAG recently revealed that the Singapore-Kuala Lumpur route is the world's busiest international air link. This is based on the number of flights between the two cities in 12 months up to February 2018. This route had 30,537 flights, while second was Hong Kong-Taipei was 28,887 and Singapore-Jakarta was 23,704. This is a strong indicator of demand for alternative and faster travel routes linking Singapore and Kuala Lumpur.

Potential Parties for HSR Project Structure

KL-SG HSR structure



Source: MyHSR

The diagram above depicts all the parties involved in the HSR structure.

- **AssetsCo:** Building, financing and maintaining all rolling stock, as well as designing, building, financing, operating and maintaining all rail assets (e.g. trackwork, power, signalling and telecommunications)
- **InfraCos:** Paying AssetsCo an "availability payment" which covers the capital expenditure (capex), cost of operations, maintenance and renewal of HSR Assets (excluding rolling stock) in return for AssetsCo making HSR assets available to the OpCos
- **OpCos:** Paying AssetsCo train lease fees which cover AssetsCo's train-related costs, as well as operational, maintenance and renewal costs of equipment in return for AssetsCo making the trains available to OpCo International to operate the express and shuttle services, and OpCo Domestic to operate the domestic services

AssetsCo

Prior to GE-14, MyHSR and SG HSR jointly called for the AssetsCo PPP Project International Tender on 20 December 2017. The tender was initially supposed to close on 29 June 2018 but was extended to 28 December 2018.

With the postponement of this project to May 2020, the international AssetsCo tender was called off.

The previous tender notice mentioned that the AssetCo will be responsible for:

1. Designing, building, financing and maintaining all rolling stock

2. Designing, building, financing, operating and maintaining all rail assets (track-work, power, signalling and telecommunications)

3. Coordinating the system's network capacity for operations and maintenance needs

The revival of Bandar Malaysia will enable the master developer Iskandar Waterfront Holdings (IWH) and CREC to acquire 60% of equity in Bandar Malaysia for RM7.4bn from 1MDB Real Estate. The site spans 196.7 ha and could be the main HSR terminal. CREC was supposed to invest US$2bn to build its own regional centre in Bandar Malaysia.

Once the project is revived in 2020, we think that it will be a close race between the Chinese and Japanese for the AssetCo tender. Similarly, the Jakarta-Bandung HSR was won by the Chinese.

Prior to the GE14, a Chinese consortium consisting of eight companies including CRRC, China Railway Construction Corporation, China Railway Signal and Communication, and Export-Import Bank of China was believed to be bidding for the project. This will cover the design, construction, telecommunication, financing, operation and maintenance for HSR.

In January 2018, Japan was also strongly rumoured to bid for this project, including a total transfer of technology and local vendor development to benefit Malaysian and Singaporean companies.

Mr. Miyagawa, Japan's ambassador in Malaysia stated that Japan offers the most competitive financing package, full-fledged training for officials, operators and engineers and its impeccable reputation for safety. Japan's bullet trains (Shinkansen) have operated for almost 50 years without any fatal accidents or human capital problems.

PDP

The PDP will be responsible to develop detailed designs for the infrastructure works including station and the alignment structures (i.e. bridges, tunnels and embankments) within Malaysia and construct them within budget and on time. It remains to be seen if the PDP approach will still be used but we think this will be unlikely.

In addition to detailed design and delivery of the infrastructure works, the PDP will also be required to assist with interface management, land acquisition processes and stakeholder engagement activities.

According to the previous tender documents, the project is open to firms meeting the following pre-requisites:

1. Have undertaken railway projects in Malaysia and demonstrated the following:

    - Comprehensive knowledge of local railway construction best practices, regulatory requirements and supply market conditions and;

    - Ability and experience in railway project management, design and construction.

2. Experienced in high speed railway infrastructure project management and design (may be demonstrated by appointment of specialist consultants

3. Registered with Malaysia's Construction Industry Development Board (CIDB) under Category G7

Potential Construction Beneficiaries

The KL-SG HSR project will be vital for the revival of the construction sector in 2020. The new government's emphasis will be on greater transparency, higher local content ensuring a high multiplier effect and more competitive pricing.

Are previous winners still contenders?

The jury is still out on this. The two key differentiating factors will be; i) experience and, ii) balance sheet strength. This would favour larger public listed contractors such as Gamuda, IJM Corp, YTL Corp and Sunway Construction as top contenders. In the months leading up to the project's revival in May 2020, we foresee strategic JVs or tie-ups between some of these contractors and potentially foreign contractors/financiers.

Two previous winners

To recap, there were two winning consortiums before the project was deferred. The Malaysian Resources Corporation Berhad (MRCB)-Gamuda consortium won the PDP Package 1 (northern section) from Kuala Lumpur to the state border between Melaka and Johor. The other letter of appointment (LOA) was awarded to YTL-TH Properties for the southern portion in Johor.

Project packages remain fluid

It is probable that work could be accelerated once the project kicks off in May 2020. Environmental and heritage assessments have been received. The state governments have also worked with MyHSR to freeze land transactions in accordance with Section 4 of the Land Acquisition Act 1960. In total, more than 60 civil packages and more than 5,000 subcontract packages were expected. However, this situation is fluid now.

Civil works could be scaled down

The previous indicative value for the Malaysian portion of civil works was RM35-40bn. However, this could change once tenders kick off in 2020. It is unlikely that the project will be rolled out using the PDP model. We have seen two major transportation projects (LRT 3 and MRT 2) switched to fixed price turnkey contracts.

This was the previous breakdown of the estimated RM60bn cost of the project.

1. RM35bn civil works for the Malaysian portion which would be reserved for Malaysian contractors

2. RM10bn for the Singaporean portion of civil works

3. RM15bn for AssetsCo which will be for rolling stock, systems and signalling works

Malaysia and Singapore to manage civil works independently

The civil engineering portions will be managed independently in each country. There could also be two levels of funding – the civil engineering portion funded by the respective countries' governments and foreign funding for the other works.

Before the project's deferment, the Singapore Land Transport Authority (LTA) had called for tenders for the design and construction of tunnels and associated facilities for Singapore's end of the project on 11 April 2018. This is the portion leading to the Jurong East terminus.

Refer to the table below for potential beneficiaries of the civil works for the HSR. Contractors with previous experience in railway projects such as MRT and LRT would have some advantage.

Contractors: Potential winners of HSR civil works

Company	MRT 1	MRT 2	LRT 3	Total Value (RMbn)
Gamuda	Yes	Yes	No	26.4
MMC	Yes	Yes	No	26.4
Sunway Construction Group	Yes	Yes	Yes	4.7
IJM	Yes	Yes	Yes	3.6
WCT	No	Yes	Yes	2.6
Mudajaya	Yes	Yes	Yes	2.5
Ahmad Zaki	Yes	Yes	No	2.4
TRC Synergy	Yes	Yes	Yes	2.0
Gadang	Yes	Yes	No	1.8
Gabungan AQRS	No	Yes	Yes	1.4
Kimlun Corp	Yes	Yes	No	0.6
MRCB	No	Yes	Yes	0.6
Naim	Yes	No	No	0.4

Source: Bursa Malaysia; Company , Total work is an estimate of cumulative rail based experience

HSR contractors: PDP and AssetsCo (pre-GE14)

Company	Prior experience (PDP or AssetCo)	Role for HSR (Previous)
Gamuda	PDP for MRT Line 1 and 2 (converted to turnkey)	Letter of Intent with MRCB for PDP Role Northern portion (KL to Johor) which has lapsed
MRCB	PDP for LRT 3 (converted to turnkey)	Letter of Intent with Gamuda for PDP Role Northern portion (KL to Johor) which has lapsed
YTL	ERL	Letter of Intent with TH Property for Southern portion (Johor) which has lapsed
IJM	None	
Sunway Construction	None	
MMC	MRT Line 1 and 2 (converted to turnkey)	Interested in AssetCo role
George Kent	PDP for LRT 3 (converted to turnkey)	Likely interest in AssetCo role

Source: Bursa Malaysia; Company

KL-SG HSR: Tenders underway and awarded pre-GE14

Type	Status	Date Awarded/Closing	Company
Advance Works	To be called	n/a	n/a
Independent Checking Engineer	To be called	n/a	n/a
Geospatial Data Consultant	In progress	n/a	n/a
AssetCo	In progress	29-Jun-18	n/a
Project Delivery Partner	Awarded	30-Jan-18	MRCB-Gamuda and YTL-TH
Technical Advisory Services	Awarded	26-Jul-16	CH2M/PwC
Joint Development Partner	Awarded	16-Feb-17	WSP Engineering, Mott Macdonald and Ernst & Young
Civil Reference Design Consultant 01	Awarded	3-Apr-17	Systra S.A.
Civil Reference Design Consultant 02	Awarded	3-Apr-17	Jacobs Engineering Services
Civil Reference Design Consultant 03	Awarded	3-Apr-17	Systra S.A.
Civil Reference Design Consultant 04	Awarded	3-Apr-17	Ranhill Consulting
Civil Reference Design Consultant 05	Awarded	3-Apr-17	HSS Integrated
Civil Reference Design Consultant 06	Awarded	3-Apr-17	AECOM Prefunding
Ground Control Point Survey Package 1	Awarded	13-Jun-17	Jurukur Perunding Services
Ground Control Point Survey Package 2	Awarded	13-Jun-17	Teraju Ukur
Public Inspection Data Collection and Reporting	Awarded	21-Sep-17	Acorn Marketing & Research
360 Hawkeye View Programme	Awarded	21-Sep-17	Innate Ideas

Source: MyHSR

Case Study: Jakarta-Bandung HSR

The Jakarta-Bandung HSR is an interesting case study, providing insights on potential execution issues that other countries may encounter.

Jakarta-Bandung HSR: Case Study

	Proposed	Actual
Length	150.5km	142.3km
Number of stations	8	4
Speed	350km/h	250km/h
Construction period	Mid 2016	Expected 60% completion by end 2019
Shareholding	40% China; 60% SOE Companies	40% China; 60% SOE Companies
Contract size	US$5.5bn	US$5.6bn
Precast supplied by Indonesian contractor	Rp6-7tr	Rp2tr

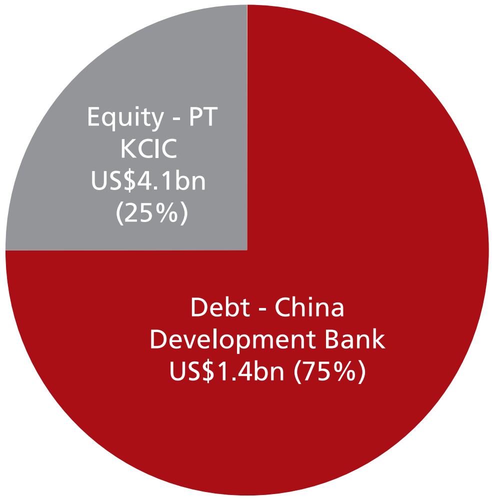
Source: Wijaya Karya

In July 2015, the Indonesian government announced plans for the HSR connecting Jakarta to Bandung in West Java. There was also mention of an extension later to Surabaya in East Java.

Both Japan and China expressed keen interest in the project but it was eventually awarded to China in September 2015. The deciding factors were China's non-requirement of a government guarantee and faster completion of the project.

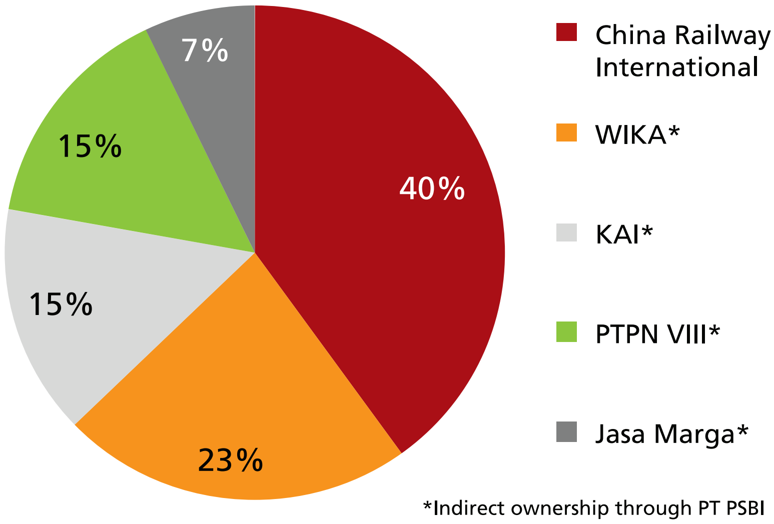
In October 2015, Chinese and Indonesian state-owned enterprises (SOEs) officially signed the deal at an estimated project cost of US$5.5bn. China Development Bank committed to fund 75% of the project with a loan tenured at 40 years and an initial grace period of 10 years at a fixed loan rate. The balance 25% will be funded by equity from the PT Kereta Cepat Indonesia China (PT KCIC). The shareholding structure of PT KCIC (the JV vehicle incorporated for this project) is 60% from the Indonesian consortium and 40% from China Railway International.

Jakarta-Bandung HSR: Funding structure



Source: Wijaya Karya

PT KCIC: Shareholding structure



Source: Wijaya Karya

Indonesia's President Joko Widodo (Jokowi) officiated the groundbreaking ceremony in January 2016 while the construction permit was issued in July 2016. However, China Development Bank took longer than expected to disburse the funds, citing incomplete land acquisition as the main reason. As such, no meaningful construction work started till late 2018. Besides land required for construction, the main sweetener to make the project more viable is the associated TOD.

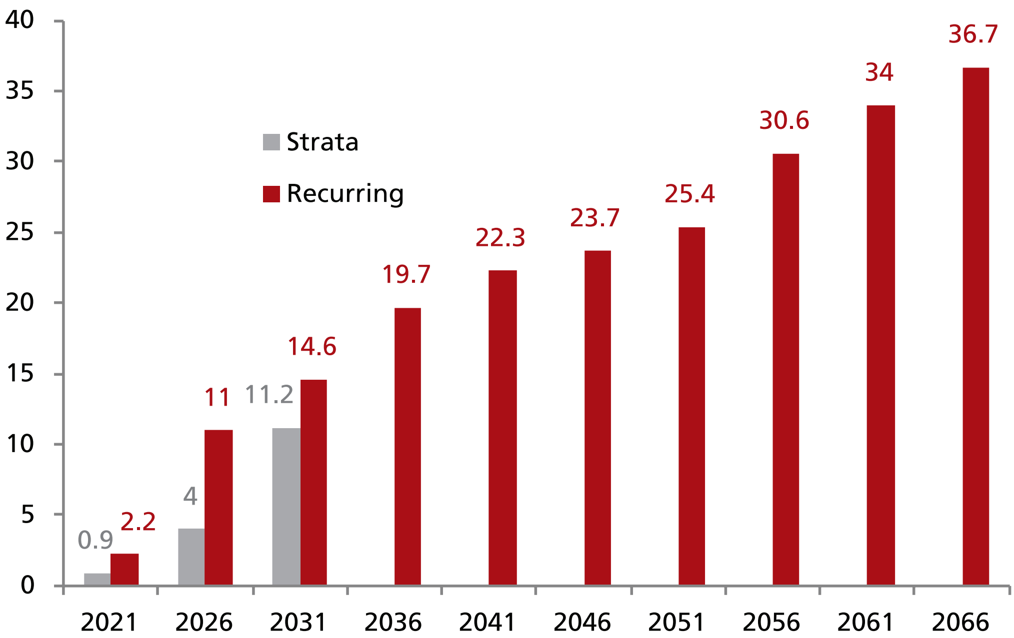
Other issues which have hampered progress of this project include lack of proper environmental impact studies, consistency with regional spatial plans and inconsistent tender processes. Internal politics between key ministerial figures have also made the process more difficult.

As of now, the project has reached 9% progress completion with a target of hitting 60% by end 2019. The target completion date has been moved to 2021. The project's internal rate of return (IRR) and equity IRR are estimated at 6.5% and 13% respectively.

More interestingly, the payback period of the project (without TOD contribution) is estimated at 47 years. With TOD contribution, payback is expected at 18-20 years. The total TOD revenue accumulation from strata and recurring income until 2070 is estimated up to Rp266tr.

In conclusion, the foreign party in the Jakarta-Bandung HSR (China) appears to have an end-to-end role in the project. It is financing 75% of the total project. As a consortium partner in KCIC it also takes on ridership risk but this is somewhat compensated by the TOD factor.

TOD: Revenue projections (Rptr)



Source: WIKA

KL-SG HSR: A different structure

The Jakarta-Bandung HSR has been delayed for two years as China Development Bank has delayed the disbursement of funds citing land acquisition issues.

However, the KL-SG HSR project is different with a clearly defined structure (AssetsCo, PDP, OpCos and InfraCos). The Malaysian government will also likely fund the civil works portion and foreign funding will only likely be required for the AssetsCo which receives a fixed train lease fee and availability payment, taking no ridership risk. This is contrast to the Jakarta-Bandung HSR where 75% of the total project is financed by China Development and balance 25% by equity from PT KCIC, in which China Railway International is also a shareholder.

The KL-SG HSR is structured so that foreign funding is only earmarked for the AssetsCo portion. This may alleviate concerns over potential project delays. The Malaysian government will likely finance civil works for the project.

In terms of potential land acquisition delays/risks, Section 4 (Act 486) of the Land Act states that compulsory land acquisition of land for public purposes cannot be objected.

Land acquisition

Land acquisition is a thorny issue in the Jakarta-Bandung HSR. To analyse how progressive local land acquisition laws are, the following data is extracted from the MyHSR website.

The land acquisition process is governed by the Land Acquisition Act 1960 (Act 486 and is consistent across all states). The government is currently in the process of conducting the Section 4 (Act 486), which reserves an approximately 500m width of land along the KL-SG HSR corridor for study purposes (i.e. soil investigation, survey, etc).

Upon completion of the study, identified lands which are required for the construction of the HSR structure (average width is approximately 30 – 50 metres) that sits within 500m of land along the KL-SG HSR corridor will be acquired permanently under Section 8 (Act 486).

The project is for public purposes where the compulsory land acquisition of land under the Act 486 cannot be objected. However, any interested person(s) may object to the compensation value, area, compensation allocation and the person(s) receiving the compensation through channels provided under Act 486.

Land Acquisition Act (Section 4 and 8)

Section 4	
Preliminary Notice on Potential Acquisition	Property owners will be informed that their properties may be acquired (may not be at the end) given their properties are located along the proposed alignment of the HSR line. The Section 4 (Act486) will allow a detailed study to be conducted by MyHSR Corp or its contractor by allowing them to enter the land for soil investigation purpose. This public notice will be posted at the District Land Office, public notice boards, etc.
Section 8	
Declaration that land/ property is required for public purpose	The land or property owner will be officially notified via registered post / notice server by Pejabat Tanah on the acquisition. Repeated attempts to contact the owner will be done too. Land acquisition under Section 8 (Act 486) is a permanent land acquisition, whereby each stakeholder of the land will be called during the hearing process to determine the compensation payment.

Source: MyHSR

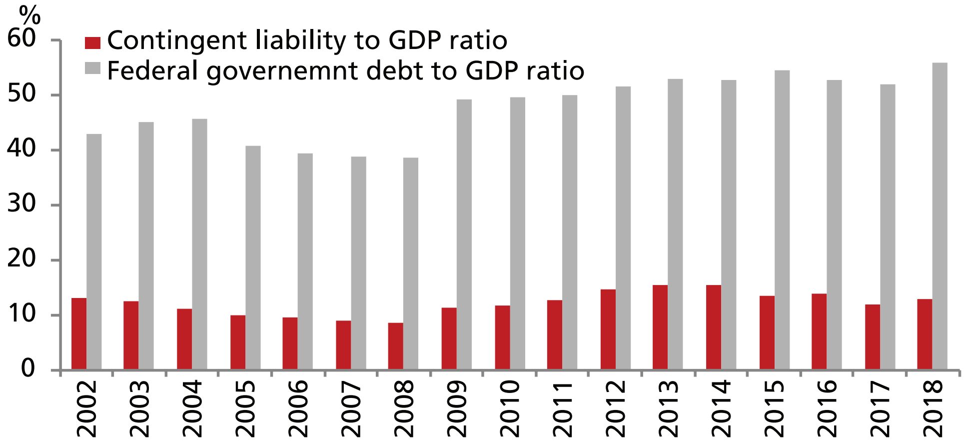
Upon approval of the Railway Scheme, the identified land will be acquired by the government in accordance with Section 8 of Land Acquisition Act 1960 ('Act 486'). The land acquisition application is expected to commence in June 2018 with the first land to be acquired for the main infrastructures (i.e. stations, maintenance facilities, tunnel portals, etc.).

Financing

The main barrier to a successful and timely rollout of this project post May 2020 is financing, especially on the Malaysian side. This was the main reason why the project was suspended post GE14. The federal government's debt-to-GDP ratio is currently 56%, but including contingent liabilities it rises to 69%. This gives the federal government little flexibility in rolling out large scale infrastructure projects, especially with lower revenue due to the abolishment of the goods and services tax (GST).

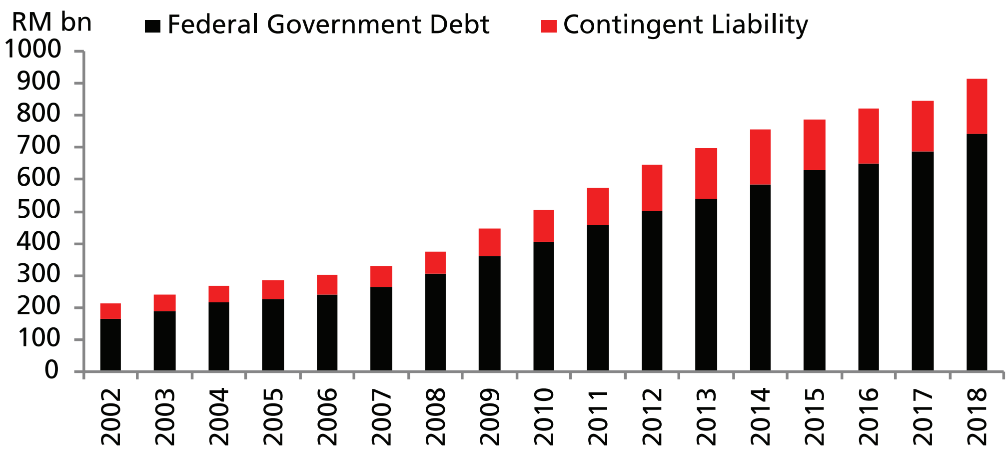
Malaysia acknowledges the HSR project's significant economic benefits for both countries but insists that it has to be feasible and sustainable. The project's structure entailing a holistic end-to-end financing, or some form of public and private financing initiative, will be key. This would also mean that contractors with balance sheet strength such as Gamuda, IJM Corp and Sunway Construction should be front runners.

Malaysia: Government debt-to-GDP ratio



Source: BNM

Malaysia: Government debt value



Source: BNM

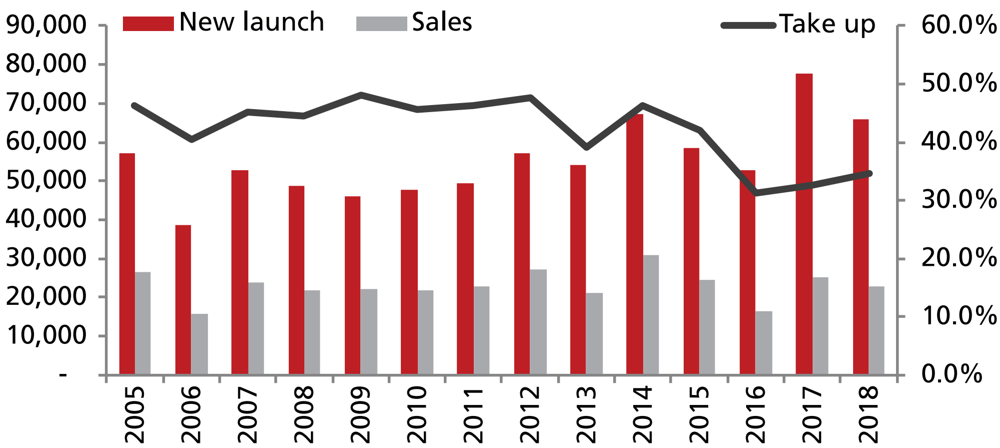
Impact on Property Market

Malaysia property market needs to be revitalised

Market slowdown

The Malaysian property market has been on a downtrend since 2015. Take-up rates have been hovering at around 30-35% over the past three years, markedly lower than the average over the past 10 years. Concerns over affordability, prolonged weak sentiment and large incoming supply continue to plague the market. It will take a long time for the sector to recover.

Property market: New launches and sales (by units)



Source: NAPIC, AllianceDBS

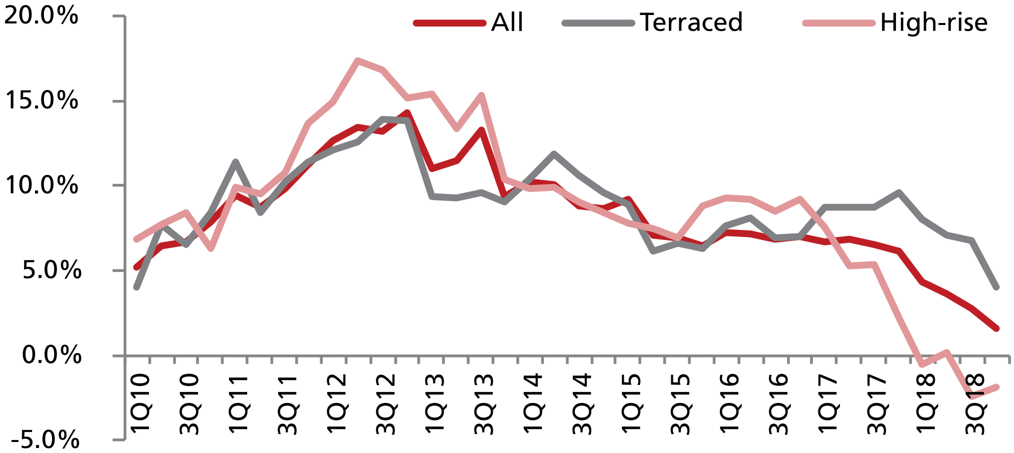
Lack of catalysts

Total property transactions in Malaysia remained uninspiring in 2018, registering 1% growth after declining by 12% and 3% in 2016 and 2017 respectively. Residential properties, which account for ~65% of total transactions, have been similarly lacklustre over the past few years. Unsurprisingly, the property market remains in the doldrums due to low affordability.

Recovery unlikely in 2019

As the property market continues to grapple with issues of affordability and supply glut, the challenging condition is expected to persist in 2019. The risk of subdued economic growth arising from financial market volatility and incessant trade tension may continue to be a dampener on the property market. This is reflected in the weak property price growth which has decelerated to its slowest pace since 2010 at a meagre 1.6% in 4Q18. The much talked about gloom and doom continues to affect buying sentiment. We believe 2019 could mark the seventh straight year of decelerating property price growth since its peak of 13.4% in 2012.

House price index: Slower y-o-y growth



Source: AllianceDBS, NAPIC

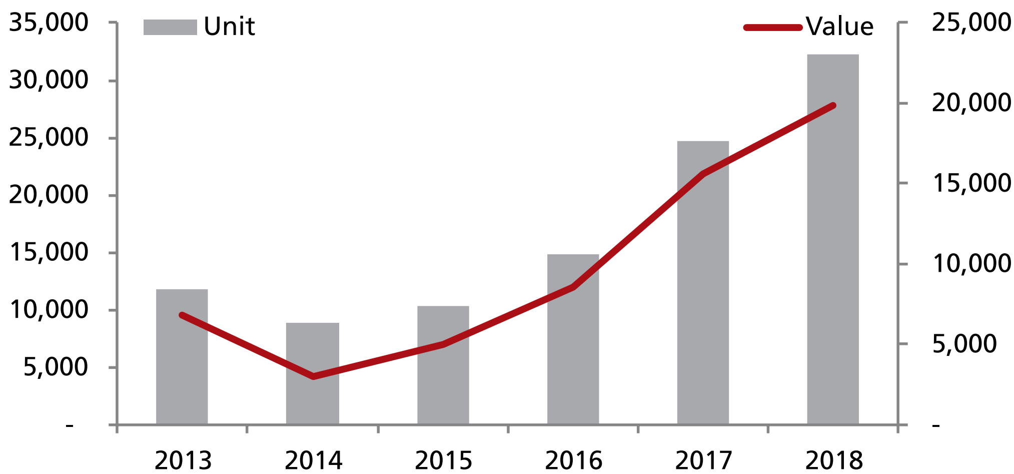
No quick fix for property overhang

More time is required for the market to absorb the large property overhang, which has depressed rental yields for property owners and making the asset class unviable as an investment. The property market is highly dependent on genuine home buyers who are spoilt for choices given the supply glut of properties. Developers have been trying hard to monetise their unsold inventory with various attractive rebates/discounts/incentives which effectively reduce net selling prices.

Oversupply of high-rise units

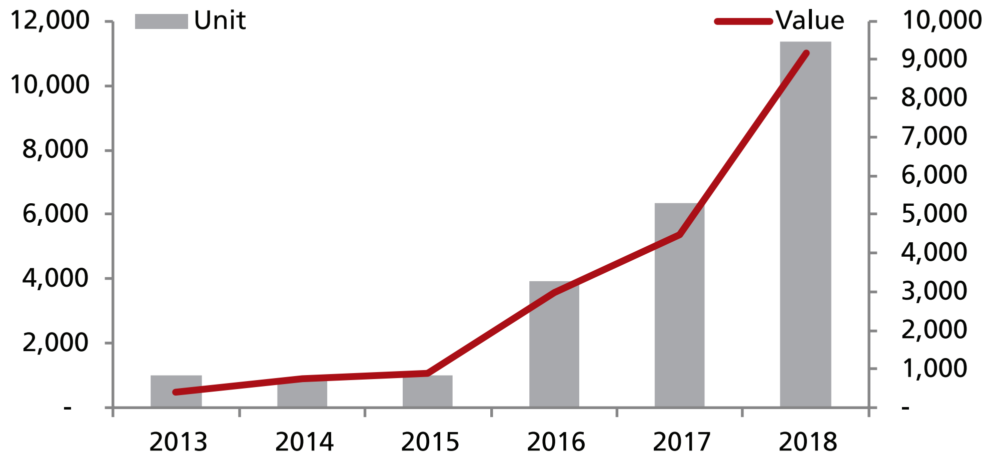
New supplies could peak in 2019 with completions from 2016-2018 projects adding on to the property overhang. This is more prevalent in high-rise units which accounted for 43% of completed but unsold residential properties of 32,313 units as at end-4Q18. If we include completed but unsold serviced apartments which are categorised as commercial properties, unsold high-rise units would surge to 58%. This is also the primary reason that high-rise property price growth swung into negative territory in 2H18.

Residential property: Completed but unsold units



Source: AllianceDBS, NAPIC

Serviced apartments: Completed but unsold units



Source: AllianceDBS, NAPIC
*Only units completed and issued with certificates of fitness for occupation but remained unsold for more than nine months

Declining property sales is expected to remain the key challenge for the sector, although individual developers with niche expertise and brand names could buck the trend. Developers have been facing difficulties in converting their initial high bookings into sales because of stricter bank lending policies. Banks are more cautious towards the property sector despite keen interest by potential home buyers, especially genuine home-occupiers who may be purchasing properties for the first time or upgrading to better homes.

In the near term, potential price appreciation of property will be capped due to stiff competition and rising incoming supply. This has been reflected in slower growth over the past few quarters. Healthy consolidation has resulted in developers being more prudent and selective with their launches and product offerings in the current buyers' market.

Developers may suffer from lower margins and find it challenging to pass through incremental cost via higher selling prices amid weak market sentiment. At the same time, developers that have accumulated land bank at high prices during the property boom times may have to revise their master plans. High-end properties are not likely to fare well under current market conditions.

Imbalanced supply-demand dynamics

As at end-2018, Malaysia's total residential stocks grew by 3%, compared to 8% and 4% in 2016 and 2017 respectively. The huge incoming supply, which is increasingly being converted into unsold inventories, will continue to pressure the property market resulting in weak property sales

For the residential property segment (including serviced apartments), we believe Johor and Penang will be more vulnerable. This is due to incoming supply that is higher than the national average, relative to the respective state's existing stock. The commercial property segment in Klang Valley and Johor will be particularly more exposed to high incoming supply.

Strong impetus for economic uplift?

HSR a much needed catalyst

The landscape of Malaysia's property market in Malaysia will be significantly transformed by the HSR. The project is expected to boost not only the local economy, but also redistribute the burgeoning population in the Klang Valley to surrounding areas. This will in turn further enhance economic development in suburban areas along the HSR line.

Generally, better accessibility to new transport infrastructure should have a positive influence on property prices. Some of the impact of transportation investment includes better transportation accessibility, higher property value and changing local economy and development dynamics. Nevertheless, the effect of positive property value appreciation may be driven by various other dynamic factors brought about by new transport infrastructure.

Not all HSRs are equal

However, research by the Australasian Railway Association on the impact of high speed rails on land and property value concluded that "HSR does not always lead to (or is positively correlated with) growth in property or land values". The research also found that smaller cities tend to enjoy greater spillover from the HSR with better property value uplift. Improved accessibility will drive stronger growth in smaller compared to larger cities which are already much more developed.

Various academic research studies have been conducted globally to examine and evaluate the impact of HSR to the local economies. It is extremely difficult to find apple-to-apple comparisons to the Malaysia-Singapore HSR. There are vastly different local dynamics in Malaysia compared to other more developed countries.

The Taiwan HSR, a 350km rail line along the west coast of Taiwan linking the national capital Taipei and the southern city of Kaohsiung was opened in Jan 2007. It significantly altered the transportation landscape in the country. The first HSR in the country revolutionised travel between the north and south of Taiwan by shortening the journey to one and a half hours from four hours previously. Ridership has also increased substantially from 15.6m in 2007 to 56.6m in 2016, a whopping 260% surge over the period.

Similar to Taiwan HSR, the Malaysian portion of the HSR connects Kuala Lumpur and Johor Bahru, the two most populous cities in Malaysia. However, Malaysia's GDP per capita is only ~40% of Taiwan's which may make it difficult to draw comparisons.

Malaysia-Singapore HSR is unique

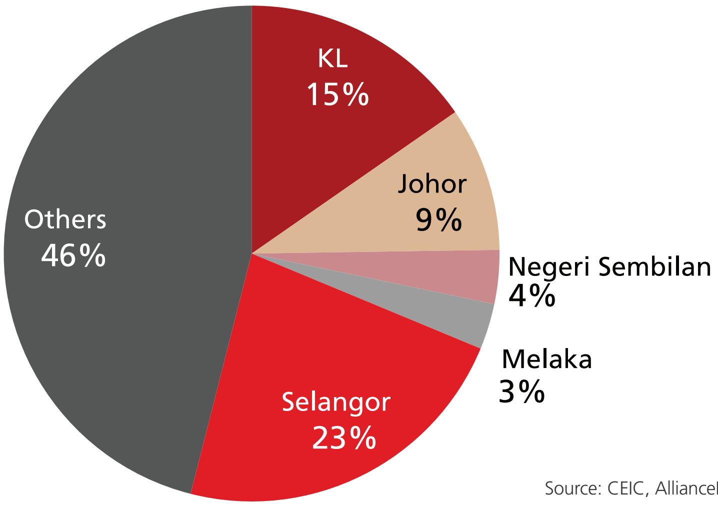
The impact of HSR on Malaysia's property sector will vary across the cities given the different economic dynamics in various localities. The seven HSR stations in Malaysia will spread over four states. The project's economic significance will be greater in five stations:

- Bandar Malaysia, KL
- Sepang-Putrajaya, Selangor

- Seremban, Negeri Sembilan
- Melaka, Melaka
- Iskandar Puteri, Johor

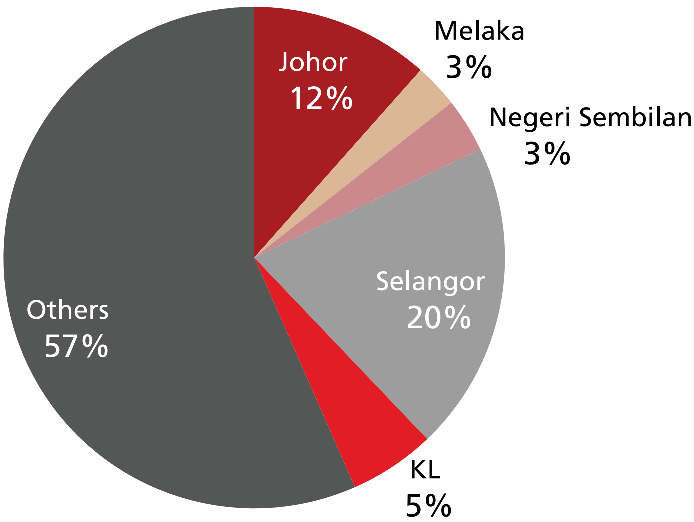
Greater KL and Johor are among the most populous areas in Malaysia, collectively consisting of ~40% of the nation's 32m population.

Malaysia: GDP contribution breakdown (by state)



Source: CEIC, AllianceDBS

Malaysia: Population growth (by state)



Source: CEIC, AllianceDBS

As the first cross-border HSR in ASEAN, the huge income disparity between both countries will help Malaysia benefit immensely in various aspects. We highlight four key thematic impacts on Malaysia's property sector which will have varying degree of changes on geographical economic developments:

- Commercial development
- Industrial development
- Tourism development
- Residential migration

Greater KL: Commercial development

Commercial development in the west coast of Peninsular Malaysia is set to receive a huge impetus from the implementation of the HSR project. Improved transport accessibility with much shorter traveling time will help revolutionise the landscape of commercial activities. There will be significant economic spillover to less developed cities along the HSR line, with potentially huge cost savings potential from improved transport accessibility.

KL-SG HSR covers two countries with vastly different economic landscapes. Singapore boasts a GDP per capita of ~US$58k while Malaysia is at ~US$10k. This is expected to drive more foreign direct investment into Malaysia to take advantage of its relatively lower business cost.

According to ECA International, the cost of a business trip to Singapore in 2018/2019 is becoming increasingly expensive at an average daily cost of US$468/ day, the most expensive in Asia after Hong Kong, Tokyo and Seoul. On the other hand, Malaysia is Asia's cheapest region for international business travel.

The notion of relocating businesses from Singapore to Malaysia has been put forward by business owners over the years. This is in view of the huge cost differentials between both countries. The KL-SG HSR will accelerate the paradigm shift. Shortened traveling time between both countries will make it viable for businesses to have more commercial presence in Malaysia.

Greater KL (Selangor + Kuala Lumpur)

Greater KL is already the key employment hub for Malaysia by virtue of its status as the capital of the country. Unsurprisingly, Greater KL is the most populous area with the highest GDP in Malaysia. KL-SG HSR will have two stations in Greater KL, namely Bandar Malaysia and Sepang-Putrajaya.

KL-SG HSR line

Source: MyHSR

Bandar Malaysia station

The 485-acre prime tract of land in KL is touted as an urban redevelopment of the old airport in Sungai Besi to support Greater KL as the new growth engine.

Apart from being the terminus for KL-SG HSR, Bandar Malaysia is set to be a transportation hub, integrating the MRT, KTM Komuter, ERL and other major highways. In addition, the Digital Free Trade Zone (DFTZ) where KL Internet City will be located will also be part of Bandar Malaysia.

Bandar Malaysia is estimated to carry a gross development value (GDV) of RM160bn over a development period of 20 years.

Sepang-Putrajaya station

This station is located south of KL city, in an area which has seen strong prospects in recent years. This is due to the increasing traction of KL-south migration, driven by MRT connectivity, strong population growth and larger supply of affordable homes. The proposed location of Serdang-Putrajaya HSR station is in Precinct 14, Putrajaya next to Kampung Abu Bakar Baginda.

The government could be constructing two tram service loops from Putrajaya Sentral which will connect to Cyberjaya and the Serdang-Putrajaya station.

Office space

Office real estate in Greater KL is set to be among the biggest beneficiaries from the KL-SG HSR project. Enhanced connectivity and low-cost advantages may help draw in more corporations to set up offices. For perspective, office buildings at central business districts (CBDs) in Kuala Lumpur and Singapore are fetching rentals at stark differentials, due to the huge income disparity between both countries. Grade A offices at Singapore CBD could fetch SG$8.50-9.50 per square foot (psf) per month, three times higher than KL Grade A offices which range from RM7-9psf per month.

Multinational corporations (MNCs) may be driven to relocate some of their offices to KL to cut down their operating expenses where savings could be quite substantial. Apart from the ~70% cheaper office rentals in KL, MNCs will be able to secure human talent at a fraction their counterparts in Singapore. We believe the KL-SG HSR project will be a game-changer to revitalise the KL office market. The ease of commuting between KL and Singapore will definitely make it economically viable for business owners to relocate part of their operations to KL from Singapore.

We estimate that a MNC that chooses to relocate its Grade A offices to KL from Singapore will be able to enjoy up to RM2.2m savings per annum just from office rental alone. Assuming that the MNC's rental expense is 15% of its annual revenue, the corporate's profit margin could be boosted by an additional 10%, just by having a KL office instead of a more expensive Singapore office.

This will translate into substantial long term savings. While certain quarters may argue that Singapore is still a more business-friendly country despite higher costs, we believe that seamless transport integration between both countries via KL-SG HSR could justify the relocation of certain business functions to Greater KL, in view of the huge cost discrepancy.

The fact that Greater KL offices are having a relatively high vacancy rate of 23% compared Singapore's 13% bodes well for potential office tenants that may capitalise on low office rentals. Currently, Greater KL is suffering from a supply glut and low occupancy for a number of new office towers, unlike the office market in Singapore. There is strong pressure for office landlords to cut down office rentals to keep occupancy at healthy levels. There would be plenty of choices for corporates searching for office space within Greater KL.

On top of Grade A office buildings in KL CBD areas, there is also a wide selection of Grade A office buildings in KL's fringe areas. These may fetch lower rentals despite boasting excellent transport accessibility. In addition, the completion of three MRT lines within Greater KL when the HSR is operational by 2026 will further enhance the appeal of having offices in KL.

Corporate rentals: Huge potential savings

	Greater KL	Singapore
Population (mil)	8.2	5.6
Office space (mil sq m)	14.7	7.9
Vacancy rate	23.3%	12.6%
CBD office rent (psf/month)	RM7-9	SG$8.5-9.5
Savings potential	70% cheaper in KL	
Illustration		
Leasing space (sf)	10,000	10,000
monthly rental rate (local)	7	8.5
monthly rental rate (US$)	1.8	6.4
total monthly rental (US$)	17,949	64,394
Difference per month (US$)		**46,445**
Difference per month (RM)		**181,136**
Rental savings per annum (RM)		2,173,636

Source: Various, AllianceDBS

Greater KL and Malaysia: International rankings

6th Most Business Friendly Country
Baseline Probability Index (BPI) 2015

25th Most Competive Country
World Economic Forum Global Competitiveness Report 2018

5th Most Attractive Destination
ET - Capital Confidence barometer (Southeast Asia) 2016

15th Ease of Doing Business Ranking
World Bank's Doing Business Report 2019

3rd Best Global Offshoring Location
A.T Kearney Global Services Location Index 2017

15th For Financial System Market
World Economic Forum Global Competitiveness Index 4.0 2018

Source: Invest KL, AllianceDBS

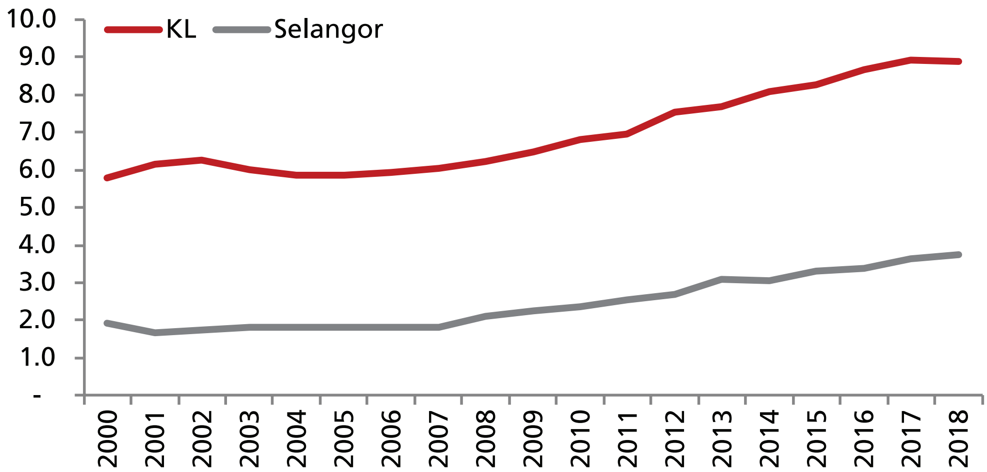
Malaysia: Office space

2018	KL	Putrajaya	Selangor	Johor	Penang	Others	Malaysia
Existing space (s.m.)	8,890,157	2,233,381	3,749,814	1,195,057	1,123,156	4,651,837	21,843,402
% of Msia	41%	10%	17%	5%	5%	21%	100%
Incoming supply (s.m.)	1,149,235	364,565	337,284	142,084	11,612	305,963	2,310,743
% of stock	13%	16%	9%	12%	1%	7%	11%
Occupancy	80%	91%	74%	76%	84%	91%	82%
Planned supply (s.m.)	645,914	31,545	10,276	48,039	9,468	28,843	774,085
% of stock	7%	1%	0%	4%	1%	1%	4%

Source: NAPIC, AllianceDBS

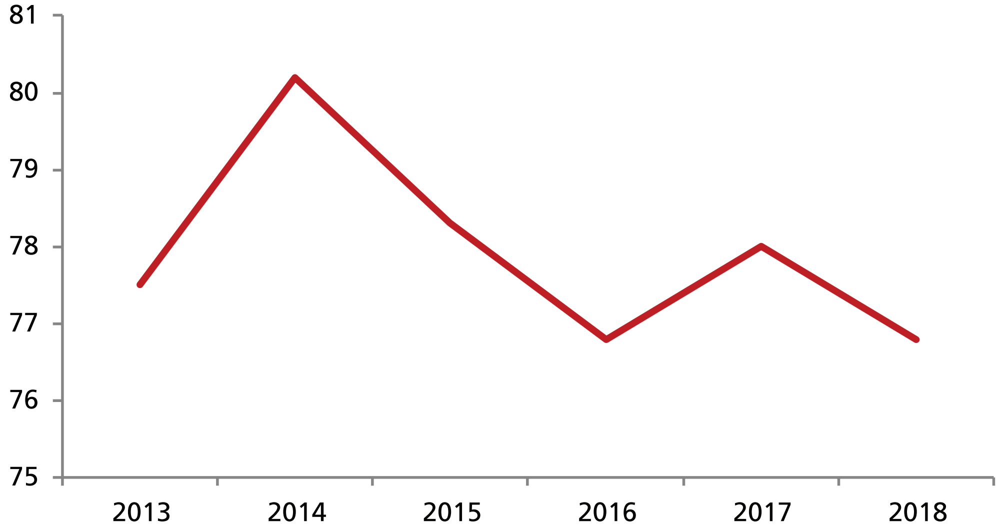
According to data by the National Property Information Centre (NAPIC), office supply in Selangor and KL increased by 60% and 31% in 2010-2018, compared to the national growth of 31%. With the huge incoming supply over the next few years, office market rentals in Greater KL are unlikely to escalate in the near-to-medium term. The KL-SG HSR could be a much needed boost to reduce the supply glut and offer a win-win scenario for business corporations.

Greater KL: Accelerating office supply since 2010



Source: NAPIC, AllianceDBS

Malaysia: Occupancy of office space



Source: NAPIC, AllianceDBS

With better connectivity via KL-SG HSR, MNCs without presence in Malaysia and Singapore could be attracted to set up their operations in Greater KL. This could address business opportunities for two countries at one go. Malaysia can also be a hub for untapped business opportunities in ASEAN.

Local Malaysian companies with operational bases in Melaka, Johor and Negeri Sembilan could also explore setting up additional offices in Greater KL with the shortened traveling time. The KL-SG HSR will transform the economic landscape of Greater KL with the entry of more foreign corporations, which will in turn create more business opportunities for local companies.

The spillover impact from a thriving business environment should translate into a more dynamic economy. Various value chains across Malaysian industries may enjoy stronger growth prospects.

Johor: Industrial development

Johor is strategically located next to Singapore and has modern infrastructure. It has direct access to five seaports in Johor and Singapore - Port of Tanjung Pelepas, Pasir Gudang Port, Tanjung Langsat Port, Jurong Ports and Port of Singapore Authority. The city is a 30-minute drive from Senai International Airport in Johor and 45 minutes from Changi International Airport in Singapore. The second link to Singapore is only a 15-minute drive away.

Iskandar Puteri. This will be the last HSR station in Malaysia before entering the terminal station in Jurong East, Singapore. The station is located at the western corridor of Iskandar Puteri, Johor. It is one of the five flagship zones of Iskandar Malaysia which is envisioned to be the economic growth driver in the south of Malaysia.

Muar and **Batu Pahat** are the two proposed HSR stations before reaching the Iskandar Puteri station from KL. These are two relatively smaller towns compared to Iskandar Puteri. Nevertheless, the three HSR stations in Johor will likely attract more investments into the state which has always been known for its manufacturing/industrial prowess. It has a strategic geographical location as well as large parcels of industrial land.

The fact that three out of the seven HSR stations are located in Johor underlines the southern state's economic importance. Unlike Greater KL where availability of vast land bank at strategic locations is increasingly limited, Johor is still able to offer large tracts of industrial land at affordable prices. Economic activities surrounding the three HSR stations in Johor are likely to enjoy a huge boost when HSR eventually starts operations.

Batu Pahat is already one of Johor's key manufacturing industrial towns, encompassing a wide range of industries including textiles, electronics, food-processing and plastics. Muar is globally renowned for its furniture-making industry. Several public-listed furniture makers have enjoyed robust growth over the years, exporting high quality products worldwide.

Iskandar Puteri is a relatively new growth corridor. It was created in conjunction with the establishment of the Iskandar Malaysia region in 2006. It houses the administrative centre of the Johor state government as well as EduCity, a 600-acre educational hub, comprising various leading universities.

Iskandar Malaysia: Development zones

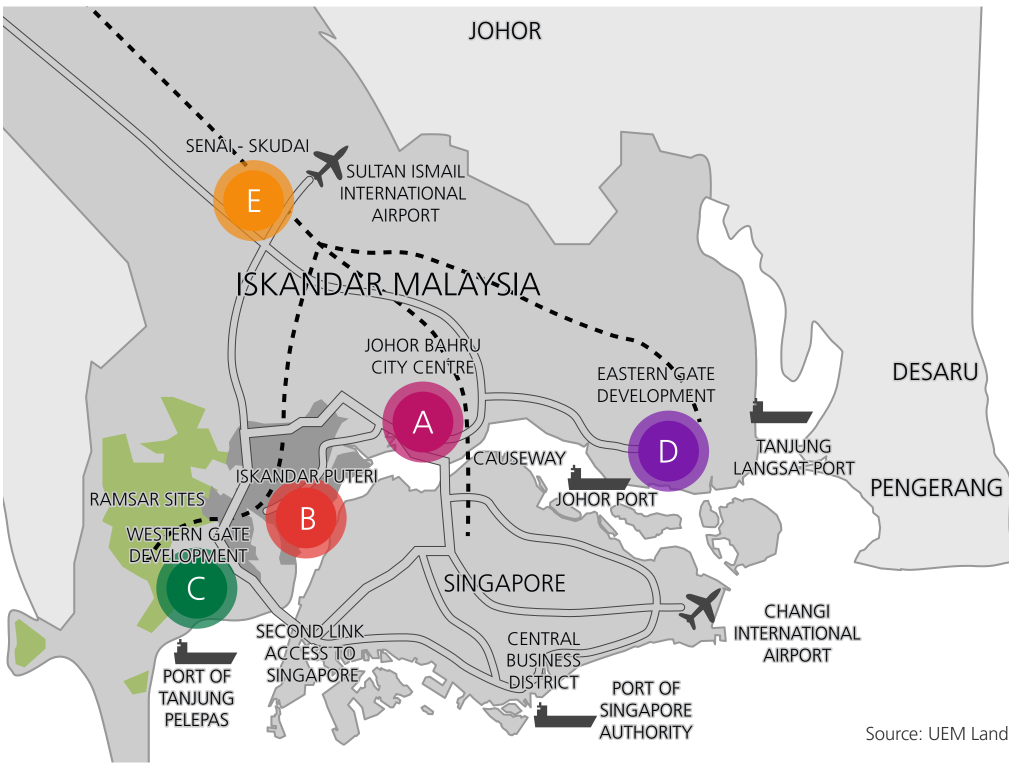
A JB Central Business District
JB Conservation & Heritage Zone
Dango Bay

B Kota Iskandar
Puteri Harbour
EduCity@Iskandar
Medini Iskandar Malaysia

C Port of Tanjung Pelepas (PTP)
Free Trade Zone
RAMSAR World Heritage Park

D Tanjung Langsat Industrial Park
Pasir Gudang Port
Tanjung Langsat Port

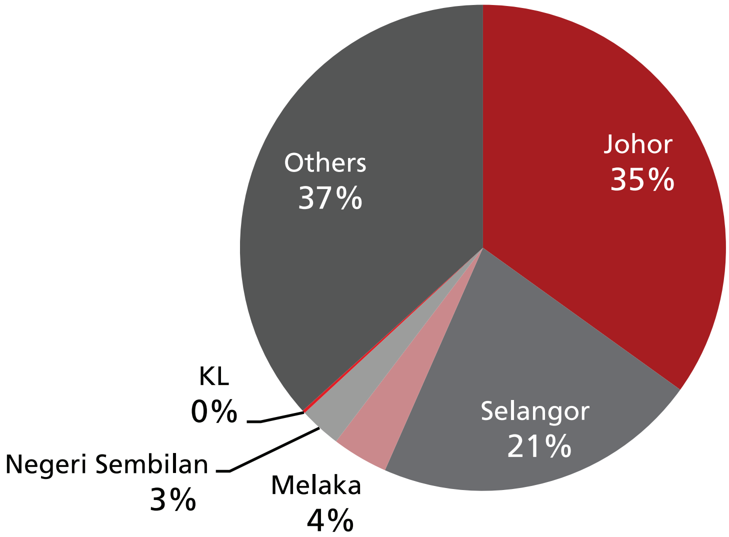
E Airport City



Source: UEM Land

According to Malaysian Investment Development Authority's (MITI) trade statistics, Singapore is one of the largest sources of foreign direct investments (FDIs) in Malaysia's manufacturing services. The appeal of Malaysia has always been its much lower cost of doing business despite having first world infrastructure. In this respect, Johor has emerged as the biggest beneficiary of strong capital investment inflow. This is evident with the proliferation of various modern and state-of-the-art industrial parks in the state.

Manufacturing sector: Total capital investment (2018)



Source: MIDA, AllianceDBS

The realisation of the much anticipated KL-SG HSR will create stronger spillover effect in Iskandar Puteri than Muar and Batu Pahat, by virtue of the former's larger population base and economic activities. Iskandar Puteri also enjoys a huge advantage due to its positioning within the wider Iskandar Malaysia region which has strong endorsements from the state and federal governments in the form of tax incentives and huge infrastructure investments.

Much anticipated catalyst

The Iskandar Puteri HSR station at Gerbang Nusajaya is set to be the biggest catalyst for the entire Iskandar Puteri. The area already has great infrastructure since Iskandar Malaysia started in 2006. Industrial activities are expected to take off in spectacular fashion as healthy supply-demand dynamics in the industrial sector will be further boosted by accessibility to the HSR.

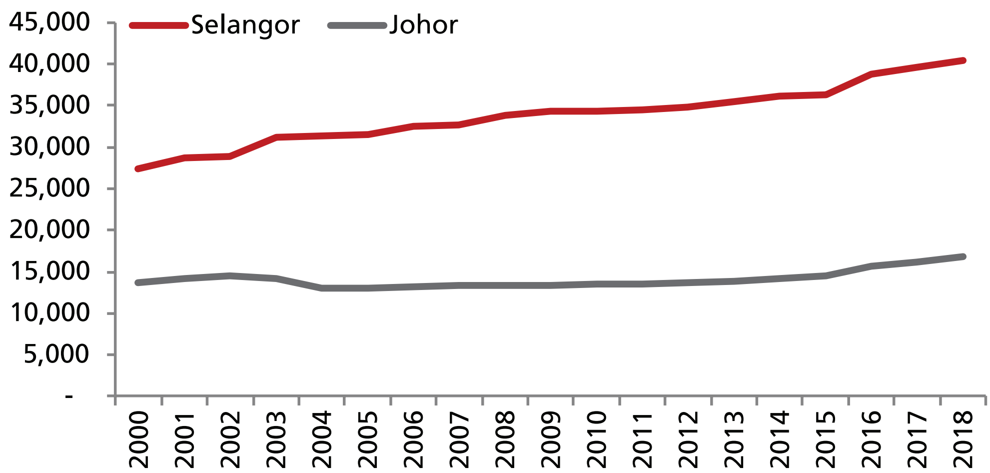
KL-SG HSR will make Johor an ideal area for industrial developments. Its strategic location and low cost advantages will make Johor the natural choice for corporations in Greater KL and Singapore.

Malaysia: Industrial units

2018 (Units)	KL	Selangor	Johor	Penang	Melaka	Negeri Sembilan	Others	Malaysia
Existing Stock	5,138	40,380	16,840	9,169	6,987	5,503	31,380	115,397
% of Msia	4%	35%	15%	8%	6%	5%	27%	100%
Incoming supply	-	1,053	1,676	176	934	22	1,056	4,917
% of stock	0%	3%	10%	2%	13%	0%	3%	4%
Planned supply	37	1,598	975	438	793	561	2,655	7,057
% of stock	1%	4%	6%	5%	11%	10%	8%	6%

Source: NAPIC, AllianceDBS

Industrial property: Healthy development growth



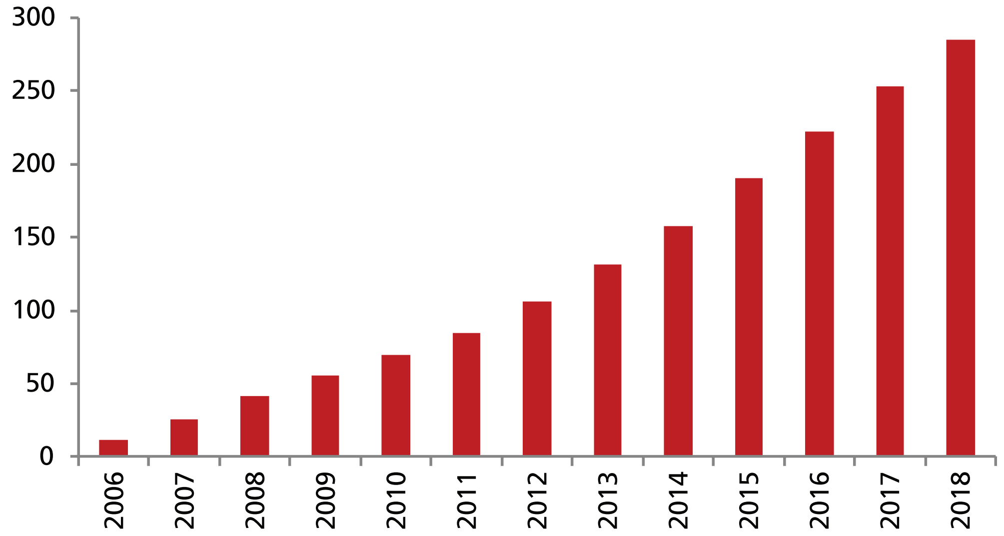
Source: NAPIC, AllianceDBS

Johor has the largest industrial units in Malaysia after Selangor. Collectively, the two states contribute 50% of Malaysia's total industrial properties. Compared to the residential and commercial property markets, outlook for the industrial property market remains robust. Selangor and Johor's industrial markets recorded positive growth in 2017 and 2018 despite the property market's general downtrend.

The additional transportation mode via HSR will help to stimulate more industrial developments in Johor which is already a manufacturing powerhouse in Malaysia. Committed investments in Iskandar Malaysia reached RM253bn as at Dec 2017, compared to RM11m in 2006 when it was first introduced to the world.

56% of the total cumulative committed investment has been realised, according to the Iskandar Regional Development Authority (IRDA). Local investors are the largest contributors to investments in Iskandar Malaysia, accounting for 62% of investments, while foreigners make up the remaining 38%.

Iskandar Malaysia: Cumulative committed investments



Source: IRDA

Melaka: Tourism

Melaka's booming tourism

Melaka City achieved its United Nations Educational, Scientific and Cultural Organisation (UNESCO) World Heritage status in 2008. This award has been a strong catalyst for the city's tourism industry. The city has rich historical and cultural background with a vast number of ancient sites and buildings presenting a kaleidoscope of architectural styles containing Peranakan, Portuguese, Dutch and British elements. Melaka's tourist arrivals (including domestic travellers) have been growing by leaps and bounds at a compound annual growth rate (CAGR) of 10% in 2008-2017, compared to just 1.8% growth of overall tourist arrivals to Malaysia.

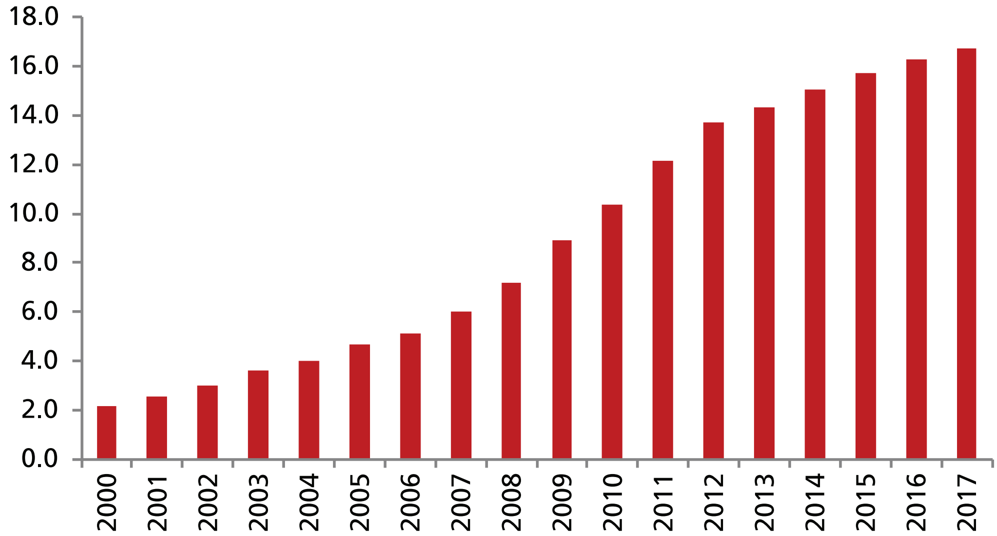
Spillover from Melaka station

The Ayer Keroh HSR station is located 13km away from Melaka City and is poised to serve as a significant catalyst to boost Melaka's tourism. Accessibility to HSR will greatly reduce traveling time and increase convenience for travellers. Currently, tourists typically travel to Melaka by road via the North-South Expressway. It is a relatively short distance from both KL and Singapore.

KL-SG HSR will help attract international tourists travelling to both Malaysia and Singapore in one trip. This will be made possible via seamless transfer between both countries. Chinese tourists contribute the largest tourist arrivals into ASEAN. They could be drawn to visit both

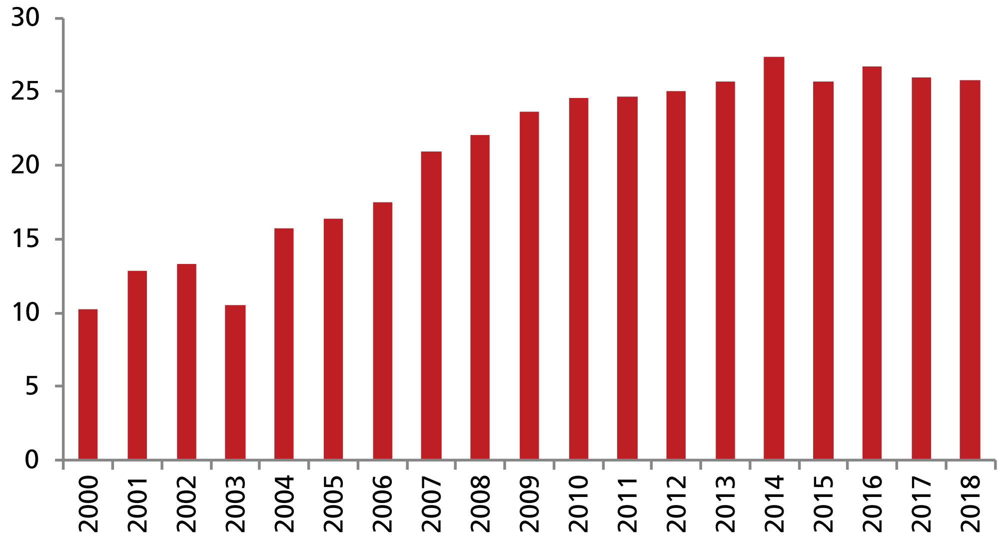
Singapore and Malaysia. Chinese tourists love to visit several ASEAN countries within the same trip. According to the ASEAN-China Centre, two-way tourism between China and ASEAN reached 49m visitors in 2017, with 28m Chinese tourists visiting ASEAN and 21m tourists from ASEAN visiting China. There is a huge untapped tourism potential that could be realised with the arrival of HSR.

Melaka: Tourist arrivals



Source: Melaka state government

Malaysia: Tourist arrivals



Source: Tourism Malaysia

Melaka: World Heritage City with unique tourism appeal

Source: Melakatravel.info, AllianceDBS

Transit-oriented development: Residential migration

Property developers have been particularly eager to participate in the KL-SG HSR development. The projects spillover impact could be immense, especially if development projects are located within close vicinity to the HSR stations. Some of the public-listed corporations such as Sime Darby Property and UEM Sunrise own large parcels of land bank surrounding the proposed HSR stations. Malaysians, Singaporeans as well as expatriates are likely to consider settling down in intermediate cities where the HSR transit stations are located. This is due to the availability of cheaper homes which could significantly increase their disposable income and lifestyle. This could also result in an increasing trend of employee migration to less mature cities and in turn stimulate more property investments.

Transit-oriented developments with direct connectivity to HSR stations are likely to be well received by property purchasers. The ease of commuting and considerably cheaper property prices will be the compelling factors. Many may choose to work in Singapore or Kuala Lumpur for better career opportunities while living in Seremban or Johor.

There are two potential migration scenarios ; i) Seremban to KL and, ii) Iskandar to Singapore. Seremban and Iskandar could see the highest migration and population growth, which in turn could result in the highest appreciation of property prices. The unrivalled advantages of lower living costs and property prices in Seremban and Johor could be major catalysts to drive migration into these areas which are expected to host four HSR stations.

It is hoped that the seamless transport connections between the cities along HSR's alignment will create the much-needed incentives for households to maximise their disposable income. This is possible by relocating to Seremban and Johor which have more affordably priced property, while at the same time earning income at major cities such as KL and Singapore. This is a likely win-win scenario for people leveraging on increased mobility via the proposed HSR.

HSR alignment: Property price disparity

	KL	Selangor	Seremban	Johor	Singapore
Average property price (local)	780,000	480,000	250,000	350,000	800,000
Household monthly income (local)	10,162	8,092	5,128	6,330	9,293
Property price / annual income	6.4	4.9	4.1	4.6	7.2

Source: Various, AlianceDBS

Land owners: Potential beneficiaries from proposed HSR stations

Proposed station	Company	Land bank (acre)
Bandar Malaysia	Ekovest, Iskandar Waterfront City	485
Sepang-Putrajaya	IOI Properties	310
Seremban	Sime Darby Property	3,196
	Matrix Concepts	1,450
Melaka	IOI Properties	1,070
Muar	Sime Darby Property	3,300
Batu Pahat	Genting Plantations	600
Iskandar Puteri	UEM Sunrise	2,200
	KL Kepong	501
	Sunway	1,079

Source: Various, AlianceDBS

Key Risks

Ridership and affordability

One of the key risks for the HSR is ridership. This will impact our thesis on potential migration between cities and its knock-on effects on property value. The key determinant of ridership is ease of use and pricing. With only CIQ check points to deal with, this is one of the strongest incentives for consumers to use the HSR.

While pricing for HSR users is not known at this stage, there have been some previous media reports quoting sources from the Land Transport Commission in Malaysia in 2015 that pricing for a round-trip ticket could be under RM400 (US$103) or RM200 (US$51) for a one-way trip. This is to accommodate all market segments, including business and leisure travellers. While details are still unclear, HSR's operator will likely be allowed yield management similar to airlines. Pricing of tickets could fluctuate depending on timing, peak periods and festivities.

The table below is a comparison of different modes of transport to Singapore and the corresponding ticket pricing. We also benchmark the probable RM200 one-way ticket pricing against other HSR services in the region.

In comparison, the price of a standard full-fare HSR ticket from Taipei to Kaohsiung - a distance of about 345km - is about US$51km.

HSR fares: Comparisons

Trip	Distance	Price (USD) One way	Price US$/ km	Time (Minutes)
Taipei to Kaohsiung	345	51	0.15	96
Tokyo To Nagoya	366	101	0.28	100
Beijing to Jinan	419	30	0.07	82
Madrid to Valencia	391	41-72	0.11-0.18	100

Source: Various websites

Currently, travellers from Singapore to KL pay between S$25 and S$50 for a five-hour bus ride; about S$80 for a 45-minute budget flight; and about S$250 for a full-service flight.

Timing risk

According to existing timeline, civil works on HSR were supposed to start in early 2019. The HSR was expected to be operational by 2026. There are a myriad of factors such as red tape,

land acquisition, weather, fluctuations in raw material costs and availablity of labour which may throw this forecast off track.

Raw material prices

Fluctuation of raw material prices poses a risk to construction cost. Steel prices have been on an uptrend since the start of this year, raising some concerns among contractors. It is uncertain if the HSR project will have a clause where raw material cost fluctuations are borne by the government.

Land acquisition issues

We expect land acquisition issues to feature more prominently in large scale projects such as the ECRL and HSR which will be funded by foreign governments. While the Land Acquisition Act allows compulsory acquisition, there could still be delays if landowners are difficult in coming to terms with the compensation amount.

More competition from foreign contractors

We expect all large scale contracts moving to have some form of foreign participation which will be packaged with lucrative financing terms. This changing landscape will eventually see more contractors venture overseas or diversify into other recurring income streams.

Spillover effects of HSR stations

The spillover impact of the proposed HSR stations on the property market relies on higher migration activities which will enhance overall economic developments. A weaker-than-expected ridership may affect the anticipated real estate market boom negatively.

Seamless immigration between Johor and Singapore

A seamless connectivity between Johor and Singapore with hassle-free immigration procedures will be critical for corporations and commuters to fully leverage on the benefits of the proposed HSR.

Warm bilateral relations between Malaysia and Singapore

This will be crucial for the first cross-border HSR in ASEAN to succeed, given the various potential issues that could arise including safety, immigration and security matters.

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